AMENDMENTS TO THE SPECIFICATION

With the paragraph starting on page 39, line 27, please amend the specification as follows:

B. Formation of YGGFL (SEQ ID NO:1)

The system was used to synthesize four distinct peptides: YGGFL (SEQ[[.]] ID NO:1), YpGFL (SEQ[[.]] ID NO:2), pGGFL (SEQ[[.]] ID NO:3), and ppGFL (SEQ ID NO:6) (the abbreviations are included in Stryer, Biochemistry, Third Ed. (1988), previously incorporated herein by reference; lower case letters indicate D-optical isomers and upper case letters indicate L-optical isomers). An entire glass substrate was derivatized with TBOC-protected aminopropyltriethoxysilane, deprotected with TFA, coated with FMOC-protected caproic acid (a linker), deprotected with piperidine, and coated with FMOC-protected Glycine-Phenylalanine-Leucine (GFL).

This FMOC-GFL-coated slide was sealed to the channel block, and all 10 grooves were deprotected with piperdine in DMF. After washing the grooves, FMOC Glycine (G) was injected in the odd grooves, and FMOC d-Proline (p) was injected in the even grooves. After a two-hour coupling time, using standard coupling chemistry, all grooves were washed with DMF. The grooves were vacuum dried, the block removed and rotated 90 degrees. After resealing, all grooves were deprotected with piperdine in DMF and washed. FMOC Tyrosine (Y) was injected in the odd grooves, and FMOC p in the even grooves. After coupling the grooves were washed and vacuum dried. Accordingly, 25 regions of each of the compounds YGGFL (SEQ ID NO:1), YpGFL (SEQ ID NO:2), pGGFL (SEQ ID NO:3), and ppGFL (SEQ ID NO:6) were synthesized on the substrate. The substrate was removed and stained with FITC-labelled antibodies (Herz antibody 3E7).

A section of the resulting slide illustrating fluorescence intensity is shown in Fig. 19. White squares are in locations of YGGFL (SEQ ID NO:1). The darkest regions are pGGFL (SEQ ID NO:3) and ppGFL (SEQ ID NO:6). The YGGFL (SEQ ID NO:1) sites were the most intense, followed by the YpGFL (SEQ ID NO:2) sites. The pGGFL (SEQ ID NO:3) and ppGFL (SEQ ID NO:6) intensities were near background levels, consistent with expected results with the Herz antibody.

Quantitative analysis of the results show overall intensity ratios for YGGFL (SEQ ID NO:1):YpGFL (SEQ ID NO:2):pGGFL (SEQ ID NO:3):ppGFL (SEQ ID NO:6) as 1.7:1.5:1.1:1.0. However, since there is a large standard deviation on the YGGFL (SEQ ID NO:1) and YpGFL (SEQ ID NO:2), comparing all the sites with each other may not accurately represent the actual contrasts. Comparing the intensities of sites within the same "stripe" gives larger contrasts, although they remain on the order of 2:1.

With the paragraph starting on page 41, line 35, please amend the specification as follows:

Substrate--(3') CGCAGCCG (5') (SEQ[[.]] ID NO:4).

After completion of the synthesis process, cleavage of exocyclic amines was performed by immersion of the reaction region in concentrated ammonium hydroxide. The reaction region was then incubated at 15°C for one hour in a 10 nM solution of the complementary base sequence 5' GCGTCGGC-F (SEQ[[.]] ID NO~~No~~:5), where "F" is a fluorescein molecule coupled to the 3' end of the oligonucleotide. The target chain solution was then flushed from the reaction region and replaced with neat 6x SSPE buffer, also at 15°C. Finally, the reaction region was then scanned using a laser fluorescence detection system while immersed in the buffer.

Kindly delete pages 43-48 of the specification.